

REMARKS

Claims 1-15 are pending in the application and stand rejected.

Claim Rejections - 35 U.S.C. § 112, First Paragraph

The Examiner rejected claims 1-15 under § 112, first paragraph, as failing to comply with the enablement requirement.

In particular, the Examiner contends "a detection means fixedly positioned in relation to said conveyed recording medium," is not supported by the present specification. More specifically, the Examiner contends that while the recording medium is conveyed for reading by the detection means, the detection means is fixedly positioned with respect to thermal head and apparatus as a whole, but not with respect to the recording medium.

In response, Applicant submits the present amendment to claim 1 obviates this rejection.

Claim Rejections - 35 U.S.C. § 103(a)

The Examiner rejected claims 1-6, 8-9 and 12-15 under § 103 as being unpatentable over Matsubara (US 5,712,666) in view of Jansen (US 6,108,436).

Matsubara is related to a recording apparatus having a recording head 34 comprised of 128 orifices positioned across the head. (Columns 12-13). The apparatus also includes a reading sensor 125, which obtains the density data of a test pattern for shading correction. (Column 16, lines 12-16). Notably, the reading sensor 125 is scanned across the recording paper 32 in order to perform the density read out.

Jansen relates to a multicolored web press wherein a quality monitoring device 12 is used to detect the mutual location of the various colors applied by each of printing presses 2, 3, 4 and 5. (See figure 1). Additionally, the quality monitoring device 12 may be used for monitoring the location of the web in a longitudinal and transverse direction with respect to the printing presses.

In the rejection, the Examiner contends Matsubara does not disclose any detection means that is fixedly positioned in relation to a printing apparatus. (*Office action*, page 5). To compensate for this deficiency the Examiner applies Jansen contending it discloses a detection means, i.e., quality monitoring device 12 (figure 3, column 3, lines 37-44), fixedly positioned in relation to the apparatus. As a reason to combine the Examiner provides, "Matsubara and Jansen are combinable because they are from the same field of endeavor, namely the calibration of print image data in a continuous printing system. At the time the invention, it would have been obvious to a person of ordinary skill in the art to use a fixed-position detection means, as taught by Jansen. The motivation for doing so would have been to provide a simpler, faster, and cheaper means of print correction in a continuous printing system (*Jansen*, column 2, lines 16-31)." (*Office action*, page 5).

First, Applicant submits the Examiner's reason to combine does not support modifying the detection means of Matsubara in view of the fixed position of Jansen's monitoring devices 12. This is because Jansen's monitoring devices 12 are used in a different process, i.e. a multi-stage color web press, for a different function, i.e., detecting the mutual locations of the various colors printed on the web 8 or the location of the web itself. Further, in Jansen, the detector only detects these locations based on marks 21-26 printed outside of the image area. (column 3, lines 47-50).

On the other hand, in Matsubara, the reading sensor 125 is used to detect the density of the ink recorded on the recorded paper. Additionally, Matsubara uses a reading head 125 that scans across the recording paper 32, and thus, teaches away from using a fixed detector.

Thus, because the Examiner's reasons to combine do not support the modifying the configuration of a density detector with the configuration of a location detector, Applicant submits the Examiner has failed to establish *prima facie* obviousness.

Second, Applicant submits that Matsubara is further deficient than acknowledged by the Examiner. In particular, the Examiner alleges Matsubara discloses "wherein said image is recorded two dimensionally on said recording medium by said conveyance means conveying said recording medium and in said conveyance direction as said image drafting means drafts said line form image." (*Office action*, page 5). However, Applicant submits that neither Matsubara nor Jansen disclose such a feature.

For example, the portion of Matsubara relied on by the Examiner to support this contention fails to disclose that the recording paper 32 is transported in a Y direction by rotating a paper feeding roller 31 as the recording head 34 moves in the X direction while at the same time ejecting ink. Rather, Matsubara discloses that in every one scanning cycle in which the recording head 34 ejects ink while it moves in the X direction shown in figure 7, and then returns to the original position, the recording paper 32 is transported to the extent of recording width for one line, and then recorded in order. (column 13, lines 12-17). In other words, the recording head 34 and the rotating paper feeding roller 31 do not move at the same time. The recording paper 32 is only conveyed after the recording head 34 has completed the printing of one line.

Furthermore, Jansen also fails to expressly disclose any such feature.

Therefore, Applicant submits that even if combined as suggested, the Examiner's suggested combination fails to disclose, at least, "said conveyance means conveying said recording medium in said conveyance direction as said image drafting means drafts said line form image," as recited in claim 1.

Thus, Applicant submits claim 1 is allowable for at least this reason. Additionally, Applicant submits claims 2-6, 8-9 and 12-15 are allowable at least by virtue of their dependency.

Claim Rejections - 35 U.S.C. § 103(a)

The Examiner rejected claims 7 and 10-11 under § 103(a) as being unpatentable over Matsubara, in view of Jansen, in further view of Rolleston (US 5,416,613).

Applicant submits that because Rolleston, either taken alone or in combination with Matsubara and Jansen, fails to compensate for the above noted deficiencies of the Matsubara/Jansen combination as applied to claim 1, claims 7 and 10-11 are allowable, at least by virtue of their dependency.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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